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I, LEANNE MYNOTT, MANAGER EXAMINATION SUPPORT AND SALES hereby certify that annexed is a true copy of the Provisional specification in connection with Application No. 2002952784 for a patent by METATHEME PTY LTD as filed on 20 November 2002.



WITNESS my hand this
Tenth day of December 2003

LEANNE MYNOTT
MANAGER EXAMINATION SUPPORT
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AUSTRALIA
Patents Act 1990

PROVISIONAL SPECIFICATION

Applicant(s):

METATHEME PTY LTD

Invention Title:

AN APPARATUS AND METHOD FOR ASSISTING A USER IN
DETERMINING A LEVEL OF CONFIDENCE IN A RISK
ASSESSMENT AND/OR ASSISTING THE USER IN DETERMINING A
LEVEL OF ACCEPTABILITY OF AN EVENT OCCURING

The invention is described in the following statement:

AN APPARATUS AND METHOD FOR ASSISTING A USER IN DETERMINING A
LEVEL OF CONFIDENCE IN A RISK ASSESSMENT AND/OR ASSISTING THE
USER IN DETERMINING A LEVEL OF ACCEPTABILITY OF AN EVENT
OCCURRING

5

FIELD OF THE INVENTION

The present invention relates to an apparatus and method for assisting a user in
determining a level of confidence in a risk assessment and/or assisting the user in
10 determining a level of acceptability of an event occurring.

BACKGROUND OF THE INVENTION

Risk is something which we all encounter in our everyday lives. For example,
15 we risk being involved in an accident whenever we travel in a motor vehicle. Generally
speaking, risk can be defined as the likelihood of some event occurring by the impact or
consequences of that event; that is, $\text{risk} = \text{likelihood} * \text{impact}$.

A great deal of research has been undertaken in order to develop techniques for
20 determining risk. Some of the more common techniques include: statistical analysis;
forward simulations; mathematical modeling; and judgement or guessing. The problem
with existing techniques for determining risk is that they do not take into account the
validity of the information or process used to derive the risk. For example, where risk is
determined using statistical analysis (of sampled data) the validity of the risk calculation
25 (that is, the level of confidence a person can have in the risk calculation) will depend to
some degree on the number of data samples used in the statistical analysis. Where only
a few samples are taken the validity of the risk would be lower than if the risk were
derived using a large number of samples.

30 Unfortunately, existing methods do not provide any indication as to the
validity of a risk calculation. Consequently, a person using the risk calculation is unable
to determine just how much confidence he/she can have in the calculated risk. This can
be detrimental if, for example, a person has too much confidence in a risk calculation
which is based on statistical analysis using only a few data samples (a low validity).

35

Existing techniques for determining risk assessment also do not give any
indication as to the level of acceptability of the event occurring.

SUMMARY OF THE INVENTION

According to a first aspect of the present invention there is provided an
5 apparatus for assisting a user in determining a level of confidence in a risk assessment,
the apparatus including:

input means for receiving at least one of a set of factors each of which can
affect the level of confidence in the risk assessment;

10 storage means for storing the set of factors and a set of weighting indicators,
wherein each factor within the set of factors is associated with a weighting indicator
from the set of weighting indicators;

processing means for processing the at least one of the range of factors entered
into the input means and processing the set of factors stored in the storage means in
order to identify a factor in the set of factors which corresponds to the at least one factor
15 entered into the input means.

output means for outputting the set of weighting indicators and the weighting
indicator associated with the factor identified by the processing means.

Thus, the information output by the output means can assist the user in
20 determining the level of acceptance in the risk assessment. The set of weighting factors
providing a context against which the weighting indicator associated with the factor
identified by the processing means can be assessed.

Preferably, the set of factors includes: information about a technique used to
25 obtain the risk assessment; the extent to which the technique is used to obtain the risk
assessment; a level of acceptance of the technique and extent to which the technique is
used to obtain the risk assessment; and information about the environment of the risk
assessment.

30 Preferably, the set of weighting indicators and the set of factors are arranged as
a matrix, wherein the set of weighting indicators are entries in the matrix and the set of
factors provide an index to the entries.

Thus, by acting as an index to the entries, each of the set of factors is
35 associated with a weighting indicator.

Even more preferably, each of the set of factors providing the index to the

entries in the matrix are divided into sub-factors.

5 Even more preferably, the set of factors providing the index to the entries in the matrix include: the information about the environment of the risk assessment; the extent to which the technique is used to obtain the risk assessment; and a level of acceptance of the extent to which the technique is used to obtain the risk assessment.

10 Even more preferably, the sub-factors for the environment of the risk assessment include: simple; low; moderate; high moderate; and complex.

Even more preferably, the sub-factors for the extent to which the technique is used includes: basic; moderate; and extensive.

15 Preferably, the input means allows the user to enter and/or change the set of factors and the set of weighting indicators.

Even more preferably, the input means is capable of storing in the storage means the set of factors and the set of weighting indicators entered into the input means.

20 Preferably, the input means includes a graphical user interface.

Preferably, the storage means include a computer storage medium.

25 Even more preferably, the computer storage medium includes a database.

Preferably, the processing means includes a suitable configured computer.

Preferably, the output means includes a graphical user interface.

30 Alternatively, other forms of computer presentation devices can be used as the output means. For example, the output means could be a printer.

35 According to a second aspect of the present invention there is provided a method for assisting a user in determining a level of confidence in a risk assessment, the method including the steps of:

entering into an input means at least one of a set of factors each of which can affect the level of confidence in the risk assessment;

storing in a storage medium the set of factors and a set of weighting indicators, wherein each factor within the set of factors is associated with a weighting indicator from the set of weighting indicators;

5 processing the at least one of the range of factors entered into the input means and processing the set of factors stored in the storage means in order to identify a factor in the set of factors which corresponds to the at least one factor entered into the input means; and

 outputting the set of weighting indicators and the weighting indicator associated with the factor identified by the processing step.

10

 Thus, the information output by the output means can assist the user in determining the level of acceptance in the risk assessment. The set of weighting factors providing a context against which the weighting indicator associated with the factor identified by the processing means can be assessed.

15

 Preferably, the method further includes the step of arranging the set of factors as a matrix, wherein the set of weighting indicators are entries in the matrix and the set of factors provide an index to the entries.

20

 Thus, by acting as an index to the entries, each of the sets of factors is associated with a weighting indicator.

 Preferably, the method further includes the step of entering and/or changing the set of factors and the set of weighting indicators entered into the input means.

25

 According to a third aspect of the present invention, there is provided an apparatus for assisting a user in determining a level of acceptability of an event occurring, the apparatus including:

30 input means for receiving a likelihood value which represents a likelihood that the event will occur, and a confidence value which represents a level of confidence that the user has in the likelihood value;

 storage means for storing a plurality of records each of which includes an indicator representing a level of acceptability of the event occurring, a range of likelihood values, and a range of confidence values;

35

 identify means for identifying one of the records in the storage means, the one of the records being identified by processing the likelihood value and the confidence value received by the input means, and each of the records stored in the storage means;

and

output means for outputting the indicator of the one of the records identified by the identifying means.

5 Thus, by outputting the indicator the user can determine the level of acceptability of the risk assessment.

10 Preferably, the range of confidence values of the record identified by the identify means includes the confidence value received by the input means, and the range of likelihood values of the record identified by the identify means either includes the likelihood value received by the input means or is numerically closer to the likelihood value received by the input means than the range of likelihood values of any other of the records for which the range of confidence values include the confidence value received by the input means.

15 Preferably, the indicator in each of the records is a visual indicator each being a different colour or symbol.

20 Preferably, the range of likelihood values in each of the records includes a range of probability values.

 Preferably, the range of confidence values in each of the records includes a range of integers.

25 Preferably, the input means is configured to allow the user to enter and/or change the range of likelihood values and/or range of confidence values in each of the records.

30 Preferably, the input means includes a graphical user interface.

 Preferably, the storage means includes a computer storage medium.

 Even more preferably, the computer storage medium includes a database.

35 Preferably, the identify means includes a suitably configured computer.

 Preferably, the output means includes a graphical user interface.

Alternatively, other forms of computer presentation devices can be used as the output means. For example, the output means could be a printer.

5 According to a fourth aspect of the present invention, there is provided a method for assisting a user in determining a level of acceptability of an event occurring, the method including the steps of:

 receiving a likelihood value which represents a likelihood that the event will occur, and a confidence value which represents a level of confidence that the user has in
10 the likelihood value;

 storing a plurality of records each of which includes an indicator representing a level of acceptability of the event occurring, a range of likelihood values, and a range of confidence values;

 identifying one of the records stored by the storing step, the one of the records
15 being identified by processing the likelihood value and the confidence value received by the receiving step, and each of the records stored by the storing step; and

 outputting the indicator of the one of the records identified by the identifying step.

20 Thus, by outputting the indicator the user can determine the level of acceptability of the risk assessment.

 Preferably, the range of confidence values of the record identified by the identifying step includes the confidence value received by the receiving step, and the
25 range of likelihood values of the record identified by the identifying step either includes the likelihood value received by the input means or is numerically closer to the likelihood value received by the receiving step than the range of likelihood values of any other of the records for which the range of confidence values include the confidence value received by the input means.

30

 Preferably, the method further includes the step of entering and/or changing the range of likelihood values and/or range of confidence values in each of the records.

BRIEF DESCRIPTION OF THE DRAWINGS

35

Notwithstanding any other embodiments which may fall within the scope of the present invention, a preferred embodiment of the present invention will now be

described, by way of example only, with reference to the accompanying figures, in which:

5 Figure 1 illustrates an apparatus for assisting a user in determining a level of confidence in a risk assessment according to the preferred embodiment of the present invention;

10 Figure 2 illustrates an apparatus for assisting a user in determining the acceptability of an event occurring according to the preferred embodiment of the present invention;

Figure 3 illustrates a matrix stored in the storage means shown in figure 1;

15 Figure 4 shows a table mapping sub-factors forming the environment factor stored in the storage means illustrated in figure 1;

Figure 5 shows a matrix used to derive the indexes shown in the table of figure 4; and

20 Figure 6 shows information stored in the storage means illustrated in figure 2.

THE PREFERRED EMBODIMENT OF THE INVENTION

25 As can be seen in figure 1, the preferred embodiment of the apparatus 1 for assisting a user in determining a level of confidence in a risk assessment includes: an input means 3; storage means 5; processing means 7; and output means 9.

30 The input means 3 is in the form of a graphical user interface (GUI) which is displayed on a computer screen. As such, the input means 3 is capable of running the appropriate software to enable the graphical user interface to be displayed. By virtue of the graphical user interface, the input means 3 allows the user to enter information about at least one of a set of factors, each of which can affect a level of confidence the user has in the risk assessment. The at least one of the set of factors entered into the input means 3 are those which relate to the risk assessment.

35

In the preferred embodiment, the set of factors includes: information about the environment of the risk assessment; information about the technique used to obtain the

risk assessment; information about an extent to which the technique is used to obtain the risk assessment; and information about a level of acceptance of the technique and the extent to which the technique is used.

5 The information about the technique describes the technique employed to arrive and the risk assessment. For example, it could describe the fact that the risk assessment was derived from either a personal assessment or that a more formal technique such as statistical analysis was employed. With regard to the extent to which the technique is used to obtain the risk assessment, this would, for example, describe the
10 number of samples on which the technique of statistical analysis was applied. The level of acceptance is primarily used to describe the number of people who accept the technique applied to the extent it is claimed to be applied. Finally, the information about the environment describes the environment in which risk assessment is applicable. For instance, where the environment can be readily controlled (for example, a
15 manufacturing environment) the environment would be considered relatively simple. In contrast, where the environment relates to the share market, in which there are many variables which can not be controlled or easily predicted, the environment would be considered to be highly complex.

20 Thus, the input means 3 (graphical user interface) would allow the user to enter, for example, the fact that the risk assessment was calculated using statistical analysis.

25 The storage means 5 is in the form of a computer storage medium, and in particular is a database. The storage means 5 stores each of the set of factors and a set of weighting indicators. Each factor in the set of factors is associated with a weighting indicator from the set of weighting indicators. Essentially, each weighting indicator represents a level of confidence in the risk assessment.

30 More specifically, the set of factors and the set of weighting indicators are arranged as a matrix 10 (see figure 3). The weighting indicators are entries in the matrix 10, whilst the set of factors act as an index 11 and 13 to the entries in the matrix 10. An example of the matrix 10 in the storage means 5 is shown in figure 3.

35 Each of the indexes 11 represent the risk assessment's environment, and is divided into a number of sub-factors. The symbols 1e - 4e are a convenient means for representing each of the sub-factors. The mapping of the symbols to the sub-factors is

shown in figure 4. The indexes 13 are derived from another matrix 14 which is shown in figure 5. The matrix 14 also has indexes 15 and 17, and entries which are the symbols (1b - 12b) used as the indexes 13 in the matrix 10 illustrated in figure 3. The indexes 15 represent the extent of work performed by the technique to derive the risk assessment.

5 As can be seen in figure 5, the extent of the work performed is divided into a number of sub-factors, which include: basic, moderate, and extensive. As an example, if statistical analysis is used to derive the risk assessment and only a small number of samples are used, then this would be classified as being only "basic". However, if a large number of samples were used then the extent of work performed would be classified as being
10 "extensive".

The indexes 17 represent the level of acceptance of the technique and extent to which the technique is used to calculate the risk assessment. As can be seen in figure 5, the indexes 17 are divided into a number of sub-factors, which include: single view;
15 small group validation; large group validation; and widely accepted. Thus, by using the matrix 14 illustrated in figure 5 one can readily determine what the symbols 13 in figure 3 represent. For example, the symbol 6b in the matrix 10 of figure 3 represents that extensive work was performed in obtaining the risk assessment, and that the technique employed to obtain the risk assessment is considered acceptable by a small group of
20 people.

For the purposes of the preferred embodiment, it can be seen that the user of the apparatus 1 is required to enter into the input means 3 the following factors: the environment; the level of acceptance of the technique and extent to which the technique
25 is used to obtain the risk assessment, and the extent of work performed by the technique. More specifically, the user would enter the relevant sub-factors which are applicable to the risk assessment.

Once these factors have been entered into the input means 3, the processing
30 means 7 proceeds to process the factors entered into the input means 3 and the matrix 10 in order to identify the indexes 11 and 13 which match the factors entered into the input means 3. For example, if the factors entered into the input means 3 were a "high-moderate" environment with "extensive" use of a technique which is accepted by a "large group", then the processing means 7 would identify the symbols "3e" and "9b".
35 The symbol "3e" being derived from the table shown in figure 4, whilst the symbol "9b" is obtained from the matrix 14 shown in figure 5. Once the processing means 7 has determined the appropriate symbols, it proceeds to 'highlight' (identify) the equivalent

indexes 11 and 13 of the matrix 10 in figure 3.

The processing means 7 is in the form of a suitable piece of software running on a computer.

5

Once the processing means 7 has identified the appropriate indexes 11 and 13, the output means 9 proceeds to retrieve the weighting indicator which is located at the intersection of the index 11 and 13 which have been identified by the processing means 7. In the case of the example given in the above paragraph, the intersection of 3e and 9b is a weighting factor of "7". The retrieved weighting factor along with the range of weighting factors in the matrix 10 (that is, 2 - 10) is then output by the output means 9. By outputting the "7" and the range "2 - 10" the user is able to put the weighting indicator (which is 7) into context. In the case of the given example, one can see that "7" rates relatively highly of the range of "2 - 10". Thus, assuming 10 indicates that a lot of confidence can be placed in the risk assessment and 2 means that little if any confidence should be placed in the risk assessment, one can safely say that the weighting indicator of "7" rates relatively highly. Consequently, a risk assessment of "7" means that the user can have a reasonable level of confidence in the risk assessment.

20

The output means 9 is in the form of a graphical user interface which is capable of running on a computer screen.

In the preferred embodiment, matrix 14 and the table illustrated in figure 4 are defined by a user of the apparatus 1. The input means 3 allows the user to define the matrix 14 and the table via the graphical user interface. Similarly, the entries in the matrix 10 are defined by the user via the graphical user interface of the input means 3.

25

The embodiment of the present invention also includes an apparatus 18 for assisting the user in determining a level of acceptability of an event occurring. As shown in figure 2, the apparatus includes: input means 19; storage means 21; identify means 23; and output means 25. The input means 19 is similar to the input means 3 in that it provides a graphical user interface. The input means 19 differs from the input means 3 in that it allows a the user to enter a likelihood value which represents a likelihood that the event will occur, and a confidence value which represents a level of confidence that the user has in the likelihood value.

30

35

The likelihood and confidence values entered into the input means 19 are a probability value (for example, 0.2 %) and integer value (for example 3), respectively.

5 The storage means 21 is similar to the storage means 5 in that it is in the form of a computer storage medium, and in particular is a database. The storage means 21 stores a plurality of records, each of which includes an indicator representing a level of acceptability of the event occurring. The record also includes a range of likelihood values and a range of the confidence values.

10 The indicators in the storage means are visual indicators, each of which is a different colour or symbol. Where, for example, the indicator represents a very low level of acceptability (that is, unacceptable), the relative indicator is the colour red, whilst a high level of acceptability is represented by the colour green. Where an indicator represents a medium level of acceptability, the indicator is orange in colour.

15 The range of likelihood values in each record is essentially different range of likelihood values. For example, a first record can have the range of $< 0.5\%$, a second record can have the range $0.5\% - 1.05\%$ and a third record can have the record $> 1.05\%$. The range of confidence values are ranges of confidence values (which are integers),
20 such as $8 - 10$, $5 - 10$ and $1 - 10$.

For illustrative purposes, figure 6 illustrates the way in which each of the records is stored in the storage means 21. With reference to figure 6, the indicators are marked 27, the ranges of likelihood values are marked as 29 and the ranges of
25 confidence values are marked as 31. Once the likelihood value and confidence value have been received by the input means 19, the identify means 23 proceeds to process the received likelihood and confidence values and the ranges of likelihood values and the ranges of confidence values in each of the records in order to identify one of the records.

30 The range of confidence values of the record identified by the identify means 23 includes the confidence value received by the input means 19, and the range of likelihood values of the record identified by the identify means 23 either includes the likelihood value received by the input means 19 or is numerically closer to the
35 likelihood value received by the input means 19 than the range of likelihood values of any other of the records.

For example, where the input means 19 receives a likelihood value of 0.55% and a confidence value of 4, the identify means 23 would identify the bottom record (of figure 6); that is, the record having a likelihood range of $> 1.05\%$ and a confidence range of 1 – 10. As with the processing means 7, the processing means 23 is a suitably
5 programmed computer.

After the identify means 23 has identified a record, the output means, which is in the form of a graphical user interface, retrieves the indicator from the identified record and displays it to the user. Thereby assisting the user is assessing the
10 acceptability of the risk assessment.

The input means 19 is also configured to allow the user to enter and/or change the range of values and/or range of confidence values in the records. This is provided for via the graphical user interface.
15

Those skilled in the art will appreciate that the invention described herein is susceptible to variations and modifications other than those specifically described. It should be understood that the invention includes all such variations and modifications which fall within the spirit and scope of the invention.
20

THE CLAIMS DEFINING THE INVENTION ARE AS FOLLOWS:

1. An apparatus for assisting a user in determining a level of confidence in a risk assessment, the apparatus including:
 - 5 input means for receiving at least one of a set of factors each of which can affect the level of confidence in the risk assessment;
 - storage means for storing the set of factors and a set of weighting indicators, wherein each factor within the set of factors is associated with a weighting indicator from the set of weighting indicators;
 - 10 processing means for processing the at least one of the range of factors entered into the input means and processing the set of factors stored in the storage means in order to identify a factor in the set of factors which corresponds to the at least one factor entered into the input means.
 - output means for outputting the set of weighting indicators and the weighting indicator associated with the factor identified by the processing means.
 - 15
2. The apparatus as claimed in claim 1, wherein the set of factors includes: information about a technique used to obtain the risk assessment; an extent to which the technique is used to obtain the risk assessment; a level of acceptance of the technique and the extent to which the technique is used to obtain the risk assessment; and information about the environment of the risk assessment.
- 20
3. The apparatus as claimed in claim 1 or 2, wherein the set of weighting indicators and the set of factors are arranged as a matrix, wherein the set of weighting indicators are entries in the matrix and the set of factors provide an index to the entries.
- 25
4. The apparatus as claimed in claim 3, wherein each of the set of factors providing the index to the entries in the matrix are divided into sub-factors.
- 30
5. The apparatus as claimed in claim 3 or 4, wherein the set of factors providing the index to the entries in the matrix include: the information about the environment of the risk assessment; information about the technique used to obtain the risk assessment; information about an extent to which the technique is used to obtain the risk assessment; information about a level of acceptance of the extent to which the technique is used to obtain the risk assessment.
- 35
6. The apparatus as claimed in claim 5, wherein the sub-factors for the

environment of the risk assessment include: simple; low; moderate; high moderate; and complex.

5 7. The apparatus as claimed in claims 5 or 6, wherein the sub-factors for the extent to which the technique is used includes: basic; moderate; and extensive.

10 8. The apparatus as claimed in any one of the preceding claims, wherein the input means allows the user to enter and/or change the set of factors and the set of weighting indicators.

 9. The apparatus as claimed in any one of the preceding claims, wherein the input means is capable of storing in the storage means the set of factors and the set of weighting indicators entered into the input means.

15 10. The apparatus as claimed in any one of the preceding claims, wherein the input means includes a graphical user interface.

 11. The apparatus as claimed in any one of the preceding claims, wherein the storage means include a computer storage medium.

20 12. The apparatus as claimed in claim 11, wherein the computer storage medium includes a database.

 13. The apparatus as claimed in any one of the preceding claims, wherein 25 the processing means includes a suitable configured computer.

 14. The apparatus as claimed in anyone of the preceding claims, wherein the output means includes a graphical user interface.

30 15. A method for assisting a user in determining a level of confidence in a risk assessment, the method including the steps of:

 entering into an input means at least one of a set of factors each of which can affect the level of confidence in the risk assessment;

 storing in a storage medium the set of factors and a set of weighting indicators, 35 wherein each factor within the set of factors is associated with a weighting indicator from the set of weighting indicators;

 processing the at least one of the range of factors entered into the input means

and processing the set of factors stored in the storage means in order to identify a factor in the set of factors which corresponds to the at least one factor entered into the input means; and

5 outputting the set of weighting indicators and the weighting indicator associated with the factor identified by the processing step.

10 16. The method as claimed in claim 15, further including the step of arranging the set of factors as a matrix, wherein the set of weighting indicators are entries in the matrix and the set of factors provide an index to the entries.

17. The method as claimed in claim 15 or claim 16, further including the step of entering and/or changing the set of factors and the set of weighting indicators entered into the input means.

15 18. An apparatus for assisting a user in determining a level of acceptability of an event occurring, the apparatus including:

input means for receiving a likelihood value which represents a likelihood that the event will occur, and a confidence value which represents a level of confidence that the user has in the likelihood value;

20 storage means for storing a plurality of records each of which includes an indicator representing a level of acceptability of the event occurring, a range of likelihood values, and a range of confidence values;

identify means for identifying one of the records in the storage means, the one of the records being identified by processing the likelihood value and the confidence value received by the input means, and each of the records stored in the storage means;
25 and

output means for outputting the indicator of the one of the records identified by the identifying means.

30 19. The apparatus as claimed in claim 18, wherein the range of confidence values of the record identified by the identify means includes the confidence value received by the input means, and the range of likelihood values of the record identified by the identify means either includes the likelihood value received by the input means or is numerically closer to the likelihood value received by the input means than the
35 range of likelihood values of any other of the records for which the range of confidence values include the confidence value received by the input means.

20. The apparatus as claimed in claim 18 or 19, wherein the indicator in each of the records is a visual indicator each being a different colour or symbol.

21. The apparatus as claimed in any one of claims 18 - 20, wherein the
5 range of likelihood values in each of the records includes a range of probability values.

22. The apparatus as claimed in any one of claims 18 - 21, wherein the range of confidence values in each of the records includes a range of integers.

10 23. The apparatus as claimed in any one of claims 18 - 22, wherein the input means is configured to allow the user to enter and/or change the range of likelihood values and/or range of confidence values in each of the records.

15 24. The apparatus as claimed in any one of claims 18 - 23, wherein the input means includes a graphical user interface.

25. The apparatus as claimed in any one of claims 18 - 24, wherein the storage means includes a computer storage medium.

20 26. The apparatus as claimed in claim 25, wherein the computer storage medium includes a database.

27. The apparatus as claimed in anyone of claims 18 - 26, wherein the identify means includes a suitably configured computer.

25 28. The apparatus as claimed in anyone of claims 18 - 27, wherein the output means includes a graphical user interface.

30 29. A method for assisting a user in determining a level of acceptability of an event occurring, the method including the steps of:

receiving a likelihood value which represents a likelihood that the event will occur, and a confidence value which represents a level of confidence that the user has in the likelihood value;

35 storing a plurality of records each of which includes an indicator representing a level of acceptability of the event occurring, a range of likelihood values, and a range of confidence values;

identifying one of the records stored by the storing step, the one of the records

being identified by processing the likelihood value and the confidence value received by the receiving step, and each of the records stored by the storing step; and
outputting the indicator of the one of the records identified by the identifying step.

5

30. The method as claimed in claim 29, wherein the range of confidence values of the record identified by the identifying step includes the confidence value received by the receiving step, and the range of likelihood values of the record identified by the identifying step either includes the likelihood value received by the
10 input means or is numerically closer to the likelihood value received by the receiving step than the range of likelihood values of any other of the records for which the range of confidence values include the confidence value received by the input means.

31. The method as claimed in claim 29 or 30, further including the step of
15 entering and/or changing the range of likelihood values and/or range of confidence values in each of the records.

32. An apparatus for assisting a user in determining a level of confidence in a risk assessment, substantially as herein described with reference to the
20 accompanying figures.

33. A method for assisting a user in determining a level of confidence in a risk assessment, substantially as herein described with reference to the accompanying
25 figures.

34. An apparatus for assisting a user in determining a level of acceptability of an event occurring, substantially as herein described with reference to the accompanying figures.

30 35. A method for assisting a user in determining a level of acceptability of an event occurring, substantially as herein described with reference to the accompanying figures.

DATED this 18th Day of November 2002

METATHEME PTY LTD

35 By their Patent Attorneys
GRIFFITH HACK

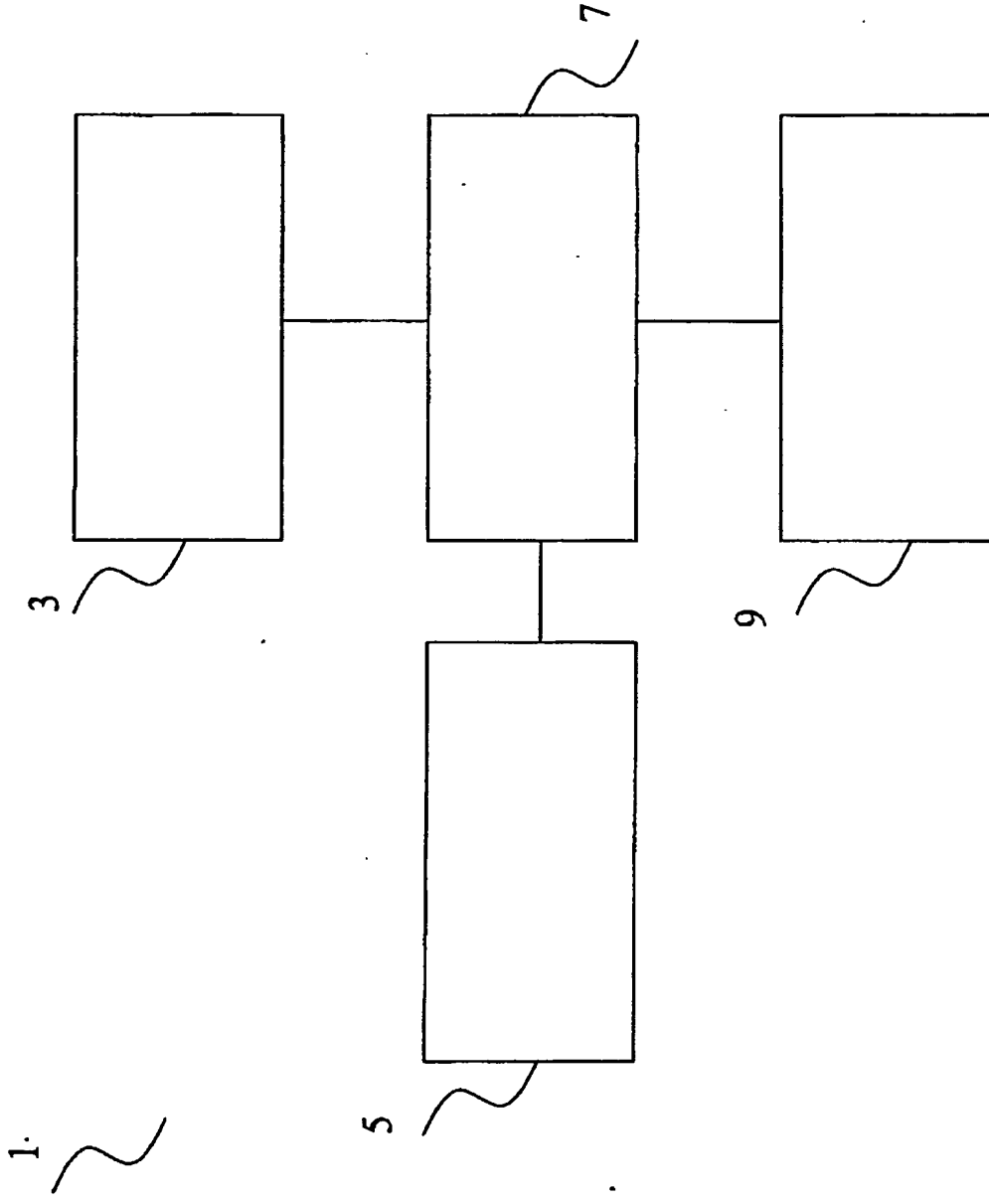


Figure 1

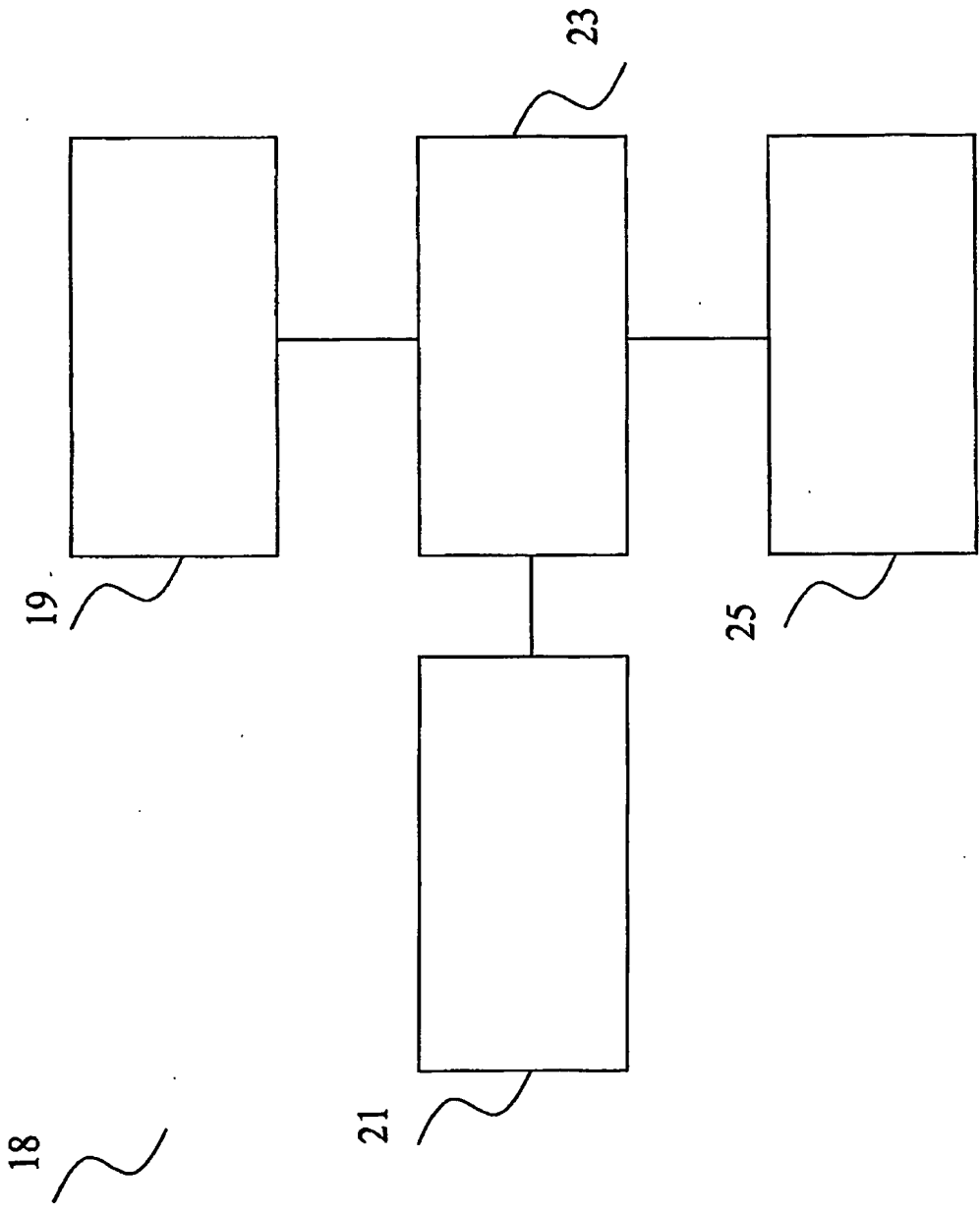


Figure 2

10

13

	1b	2b	3b	4b	5b	6b	7b	8b	9b	10b	11b	12b
1e	5	6	7	6	7	8	7	8	9	8	9	10
2e	4	5	6	5	6	7	6	7	8	7	8	9
3e	3	4	5	4	5	6	5	6	7	6	7	8
4e	2	3	4	3	4	5	4	5	6	5	6	7

Figure 3

ENVIRONMENT	IDENTIFIER
Simple	1e
Low-moderate	2e
High-moderate	3e
Complex	4e

Figure 4

17

15

	SINGLE VIEW	SMALL GROUP	LARGE GROUP	WIDELY ACCEPTED
BASIC	1b	4b	7b	10b
MODERATE	2b	5b	8b	11b
EXTENSIVE	3b	6b	9b	12b

Figure 5

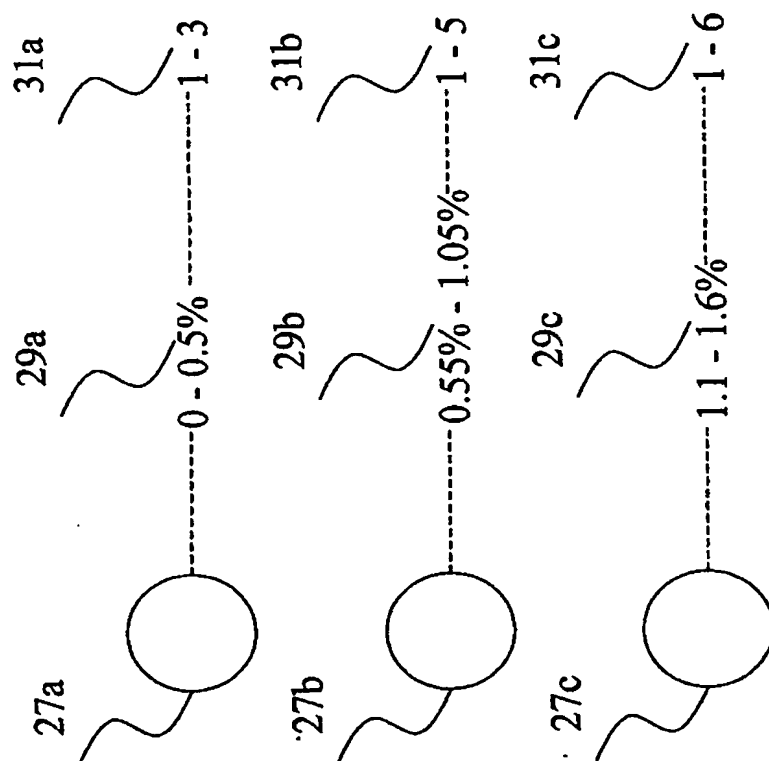


Figure 6